

BookletChart™

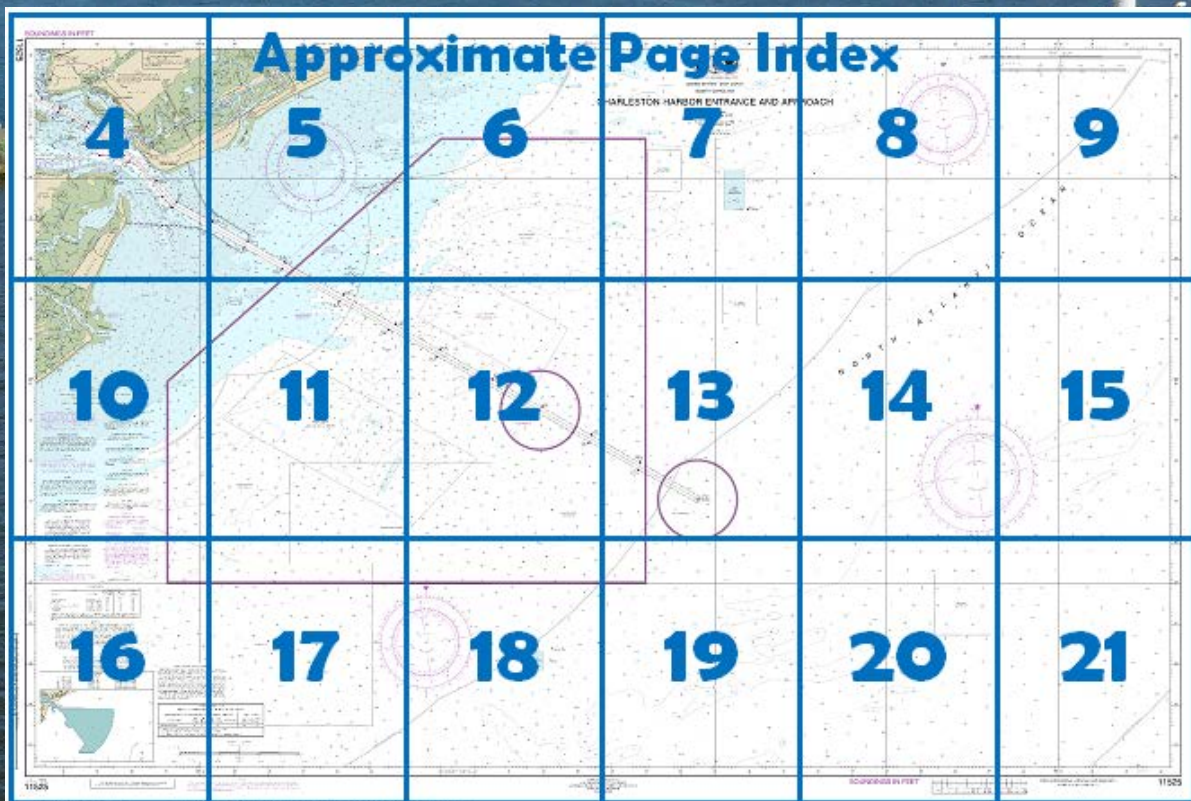
Charleston Harbor Entrance and Approach NOAA Chart 11528



A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=11528>



(Selected Excerpts from Coast Pilot)

Charleston Harbor is the approach to Charleston and the Cooper, Wando and Ashley Rivers. The harbor is easy of access day or night in clear weather, and is one of the best harbors of refuge on the South Atlantic coast.

The areas to the east and southeast of Charleston Harbor are used by the U.S. Navy to conduct training exercises.

The entrance to Charleston Harbor is between converging jetties that extend 3

miles seaward. **Fort Moultrie** and the town of **Sullivan's Island** are on the north side of the entrance; **Fort Sumter** is on the southwest side.

Charleston Light (32°45'30"N., 79°50'36"W.) 163 feet above water, is shown from a triangular tower, upper half black, lower half white, on Sullivan's Island.

Not infrequently, portions of Charleston Harbor are affected by poor visibility during squalls of heavy rain, rare snow squalls, and fog. Fog associated with a generalized weather pattern occasionally settles over the entire port area including the fairways offshore. Fog over only a part of the harbor is a frequent occurrence..

Caution.—The areas generally to the east and southeast of Charleston Harbor are used extensively by the U.S. Navy and other military services to conduct various types of surface, subsurface, and aircraft training exercises. Fleet Area Control and Surveillance Facility (FACSFAC), Jacksonville, FL, exercises cognizance of the operating areas, makes area assignments, ensures promulgation of firing notices, issues schedules, and prescribes necessary additional regulations.

The entrance to Charleston Harbor is between converging jetties. The north jetty is almost completely submerged at MHW. There are no lights on the jetties and smaller craft approaching from the north close to shore at MHW should exercise extreme caution not to confuse the south jetty for the north jetty. It is recommended all vessels align seaward of Lighted Buoy 18 before final approach to the jetty entrance.

Dangers.—The danger area of a former World War II minefield is off the entrance to Charleston Harbor. The area is open to unrestricted surface navigation but all vessels are cautioned not to anchor, dredge, trawl, lay cables, bottom, or conduct any similar type of operation because of residual danger from mines on the bottom. An **"anchor at your own risk"** anchorage, within the danger area, is on the north side of the entrance channel about 7 miles NW of Charleston Entrance Lighted Whistle Buoy C. The rectangular anchorage is enclosed by the following points:

32°42.9'N., 79°42.8'W.;

32°41.3'N., 79°39.3'W.;

32°39.9'N., 79°40.2'W.;

32°41.6'N., 79°43.7'W.

The area has been searched on many occasions and no unexploded ordnance has been discovered. Vessels have routinely anchored in this offshore anchorage for many years without mishap.

A regulated navigation area extends northeastward and southeastward along the northern side of the entrance channel from Charleston Entrance Channel Lighted Buoy 16. (See **165.714**, chapter 2, for limits and regulations.)

Currents.—Off the entrance to Charleston Harbor the tidal currents are rotary with velocities of about 1 knot. Near the entrance to the jetties the current sets fair with the channel at strengths of flood and ebb and can be expected to set across the channel with a velocity of about 0.2 knot about 3 hours after strength of flood and ebb, setting northeastward and southwestward, respectively.

Pilotage, Charleston.—Pilotage is compulsory for all foreign vessels and for all U.S. vessels under register in the foreign trade.

Quarantine, customs, immigration, and agricultural quarantine.—(See chapter 3, Vessel Arrival Inspections, and Appendix A for addresses.)

Restricted areas are in the northern portion of Shipyard Creek, and in the Cooper River at the U.S. Government facility.

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Miami

Commander

7th CG District

Miami, FL

(305) 415-6800

Navigation Managers Area of Responsibility



NOAA's navigation managers serve as ambassadors to the maritime community.

They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

To make suggestions or ask questions online, go to nauticalcharts.noaa.gov/inquiry.

To report a chart discrepancy, please use ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx.

Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers

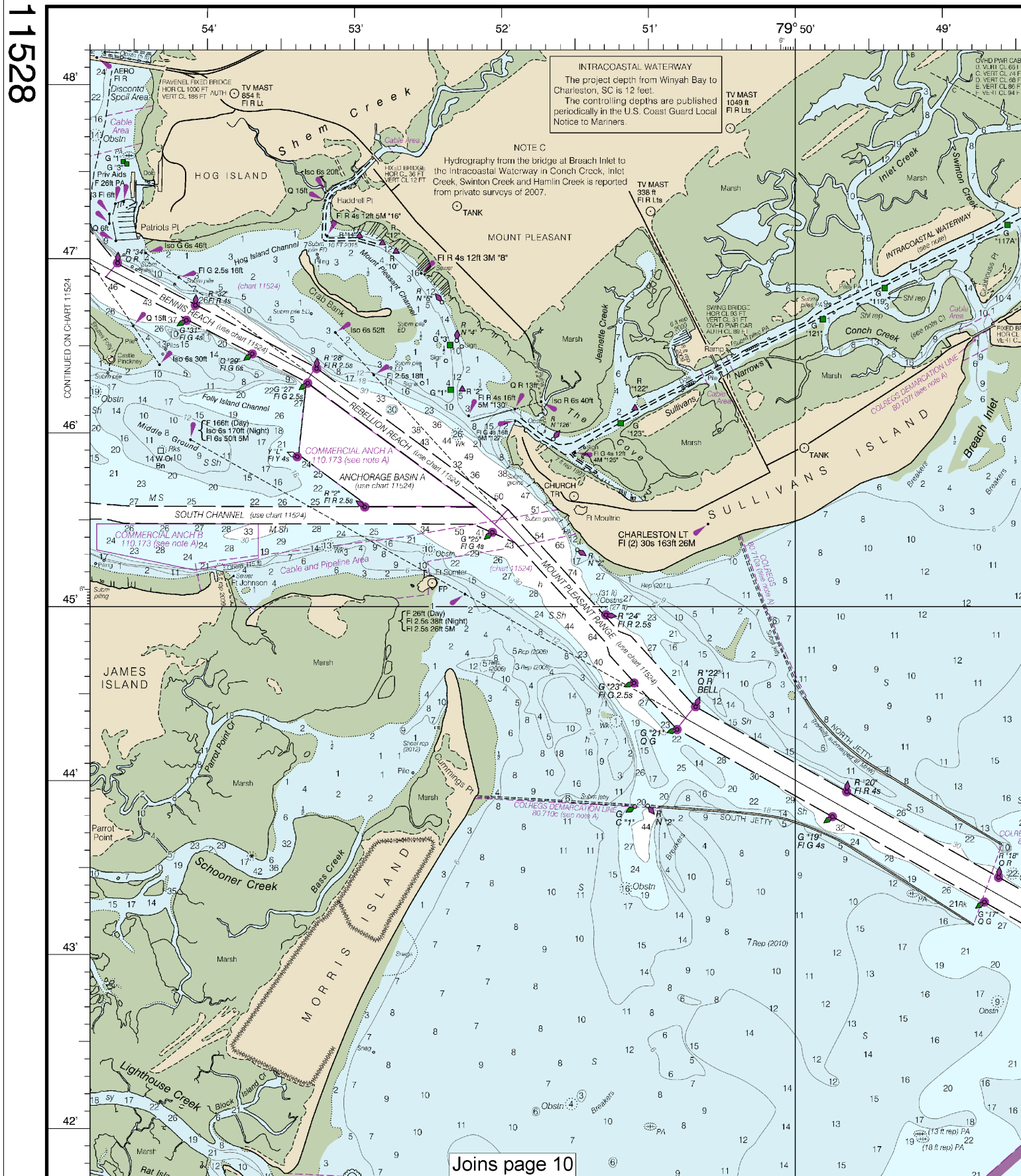


For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>

SOUNDINGS IN FEET

11528

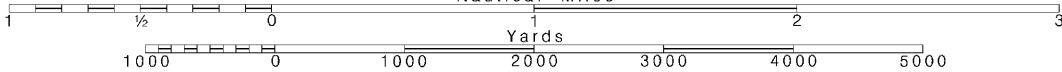


Note: Chart grid lines are aligned with true north.

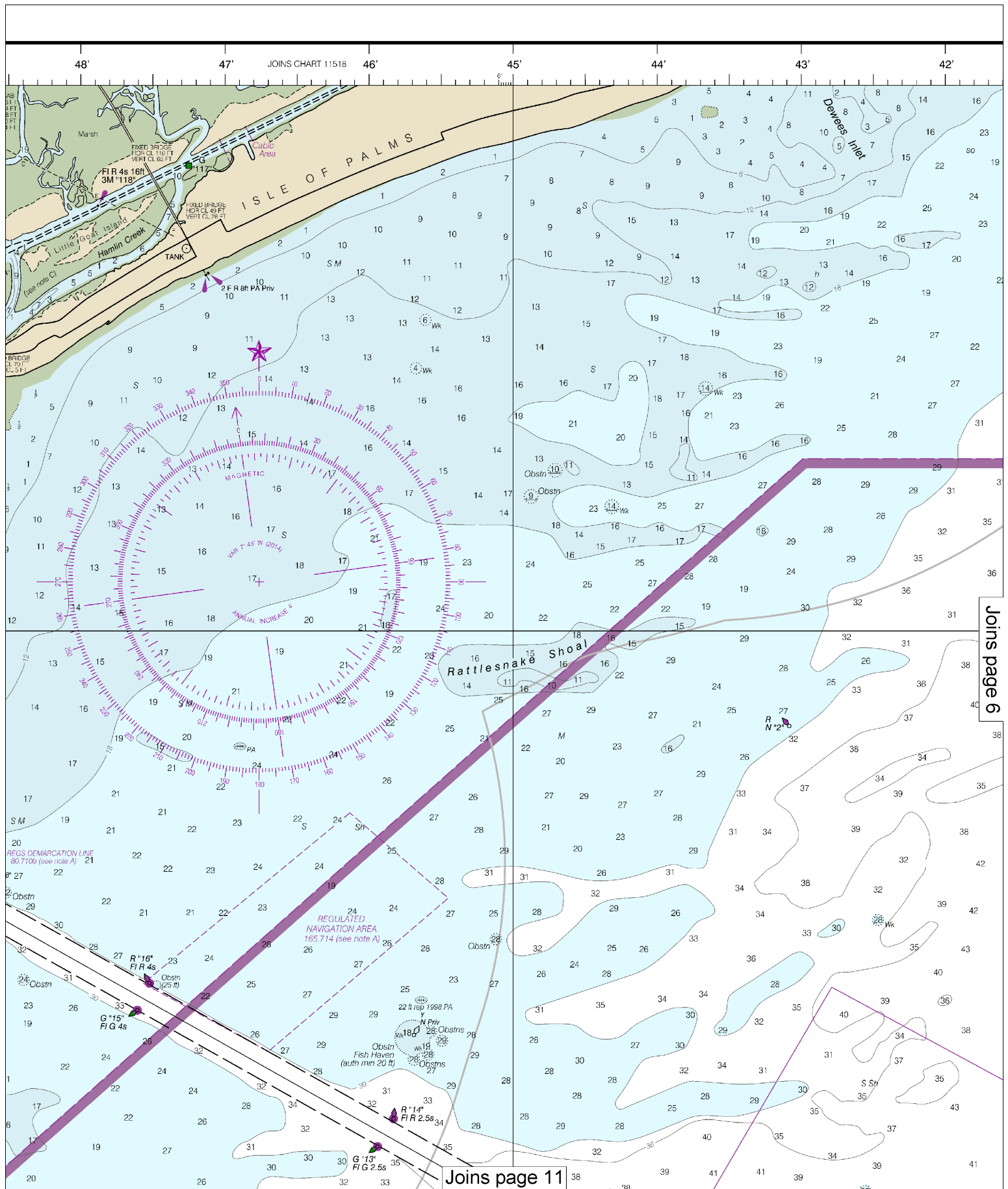
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SCALE 1:40,000
Nautical Miles

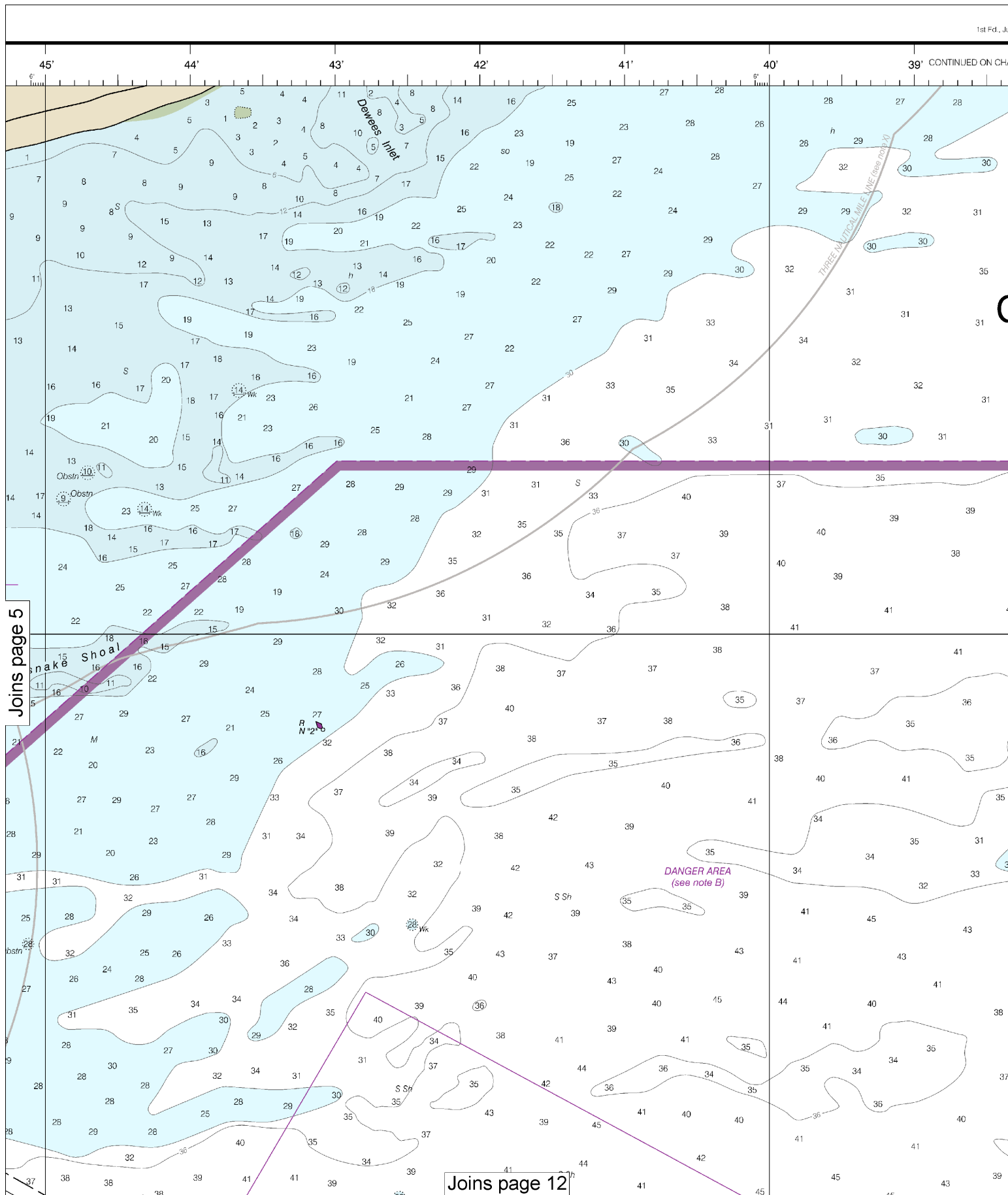
See Note on page 5.



4



This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:53333. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.



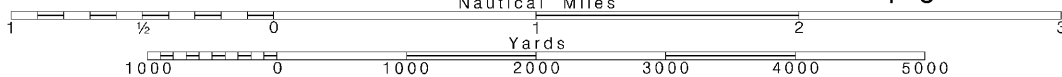
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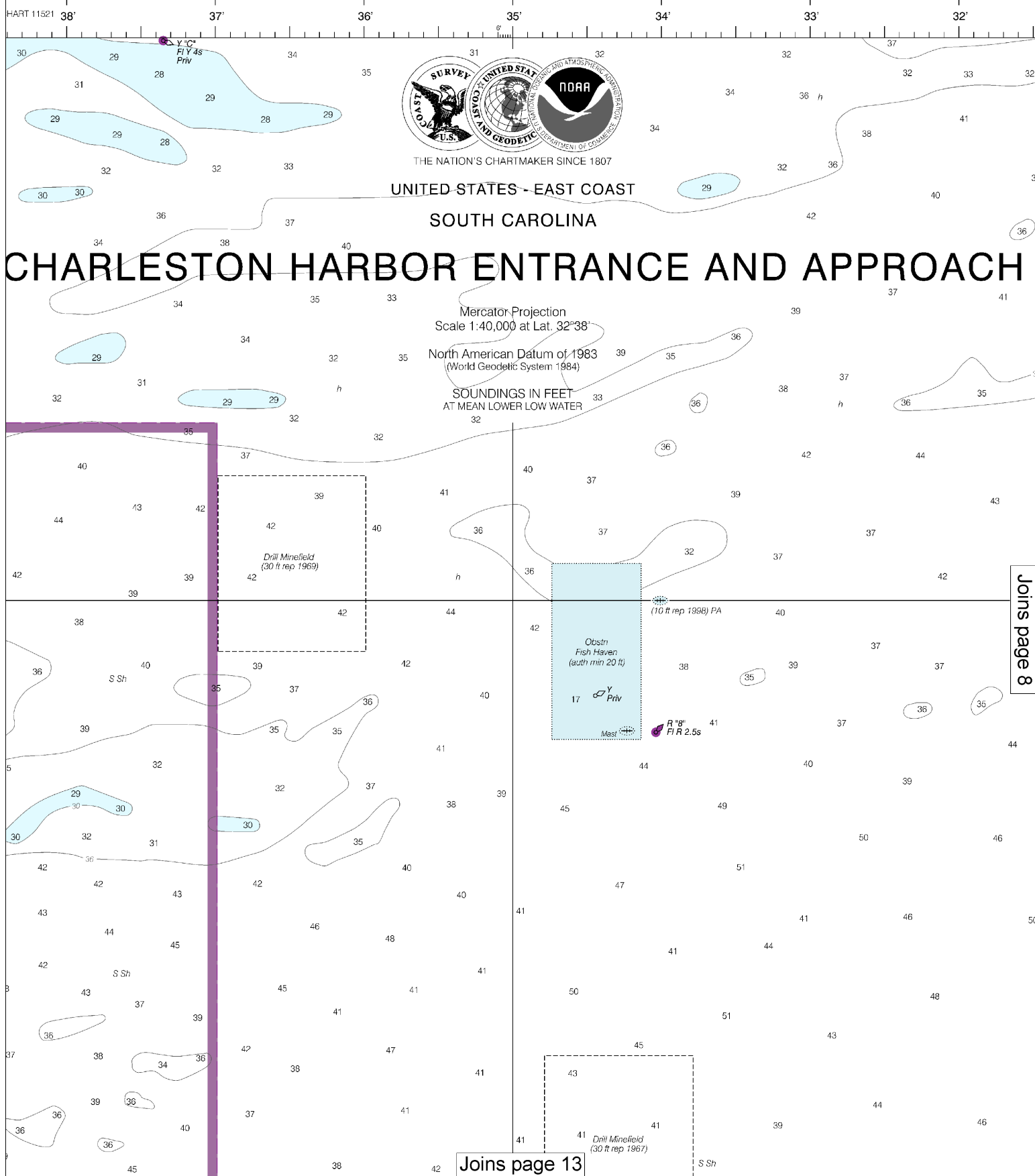
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

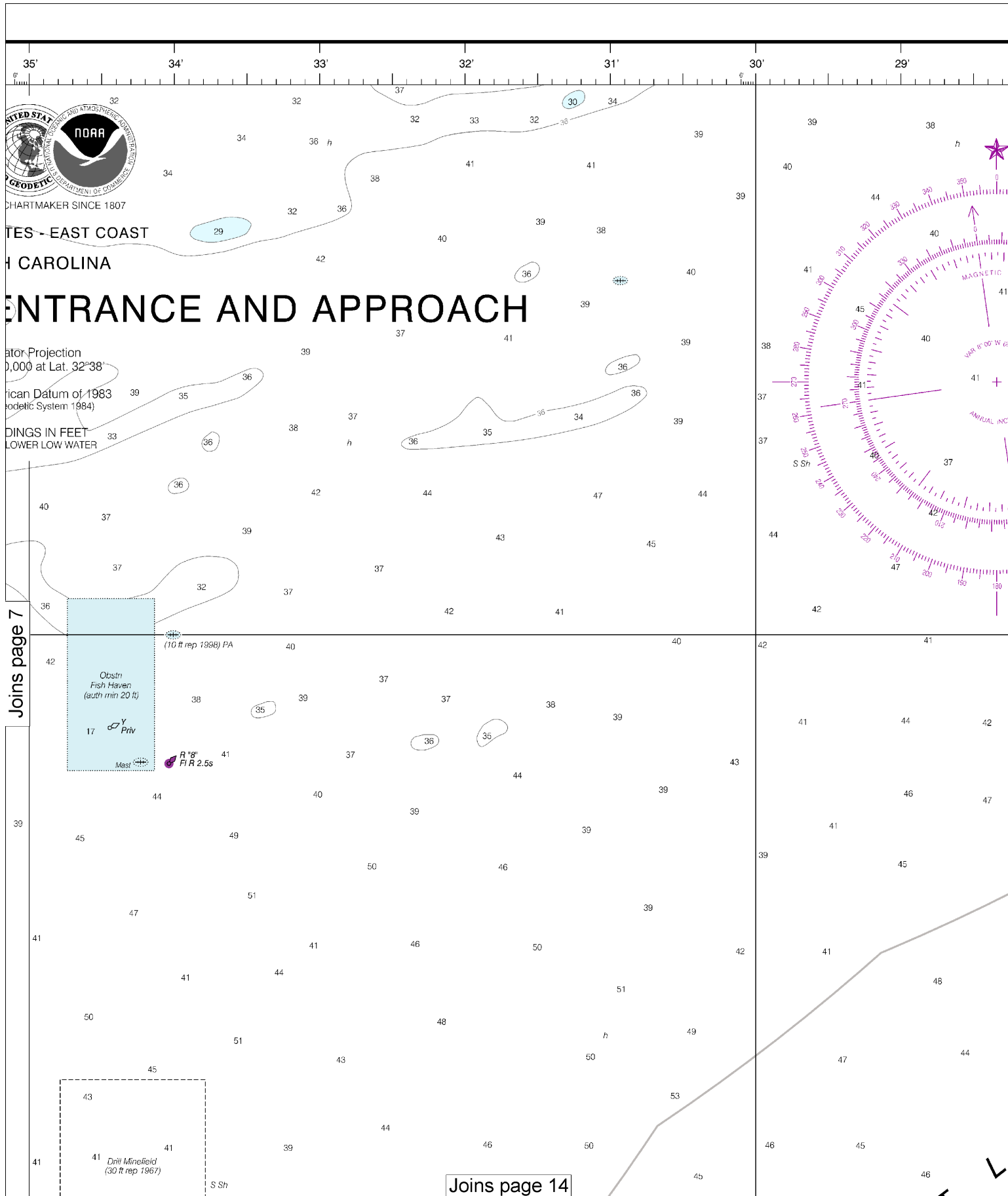
SCALE 1:40,000
Nautical Miles

See Note on page 5.





Last Correction: 6/10/2016. Cleared through:
LNM: 2516 (6/21/2016), NM: 2716 (7/2/2016)



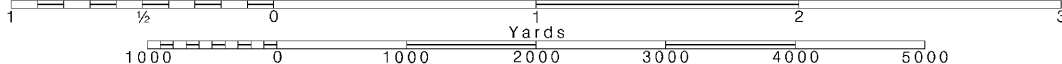
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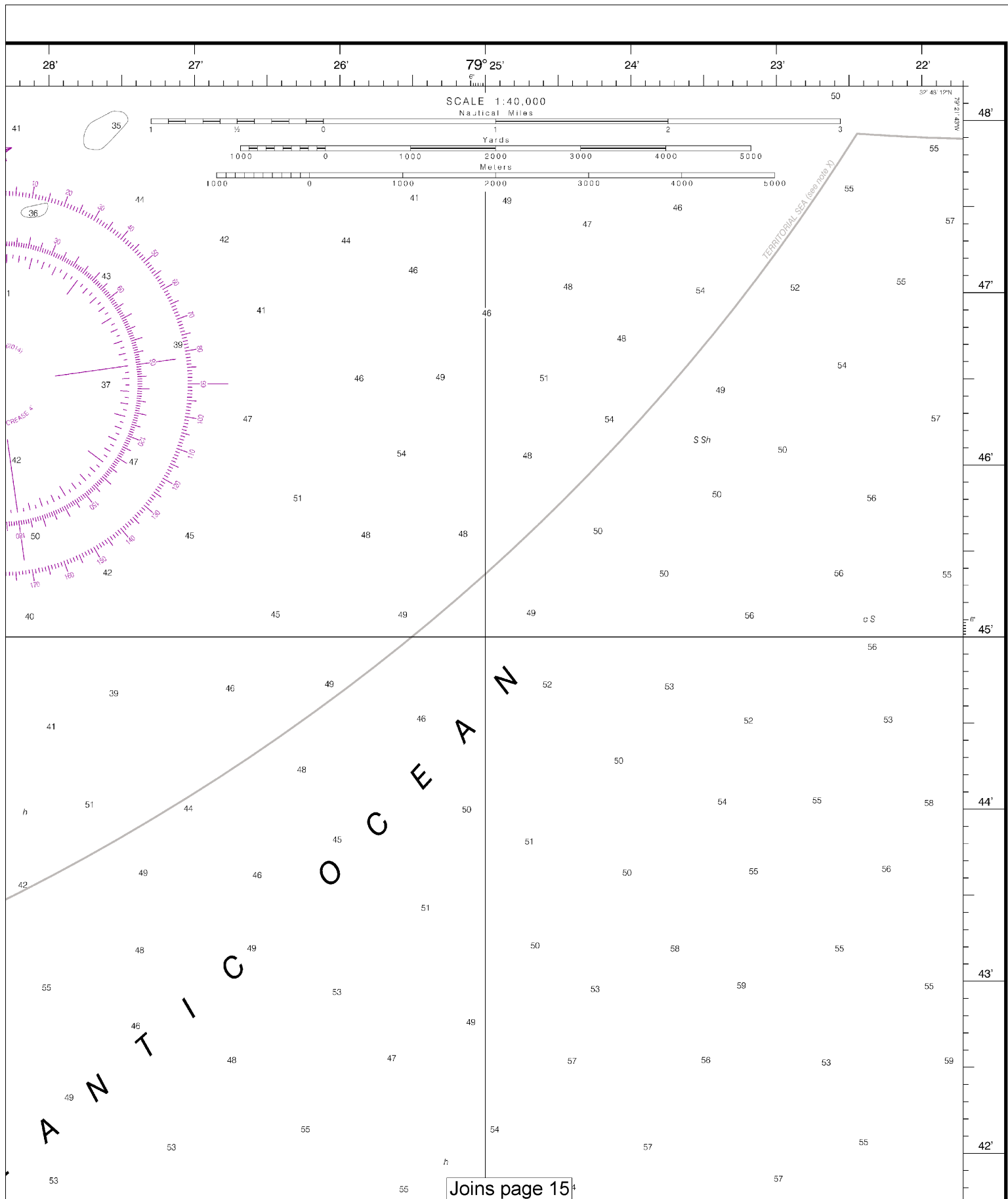
Note: Chart grid lines are aligned with true north.

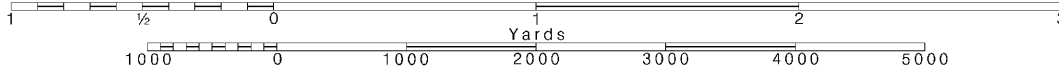
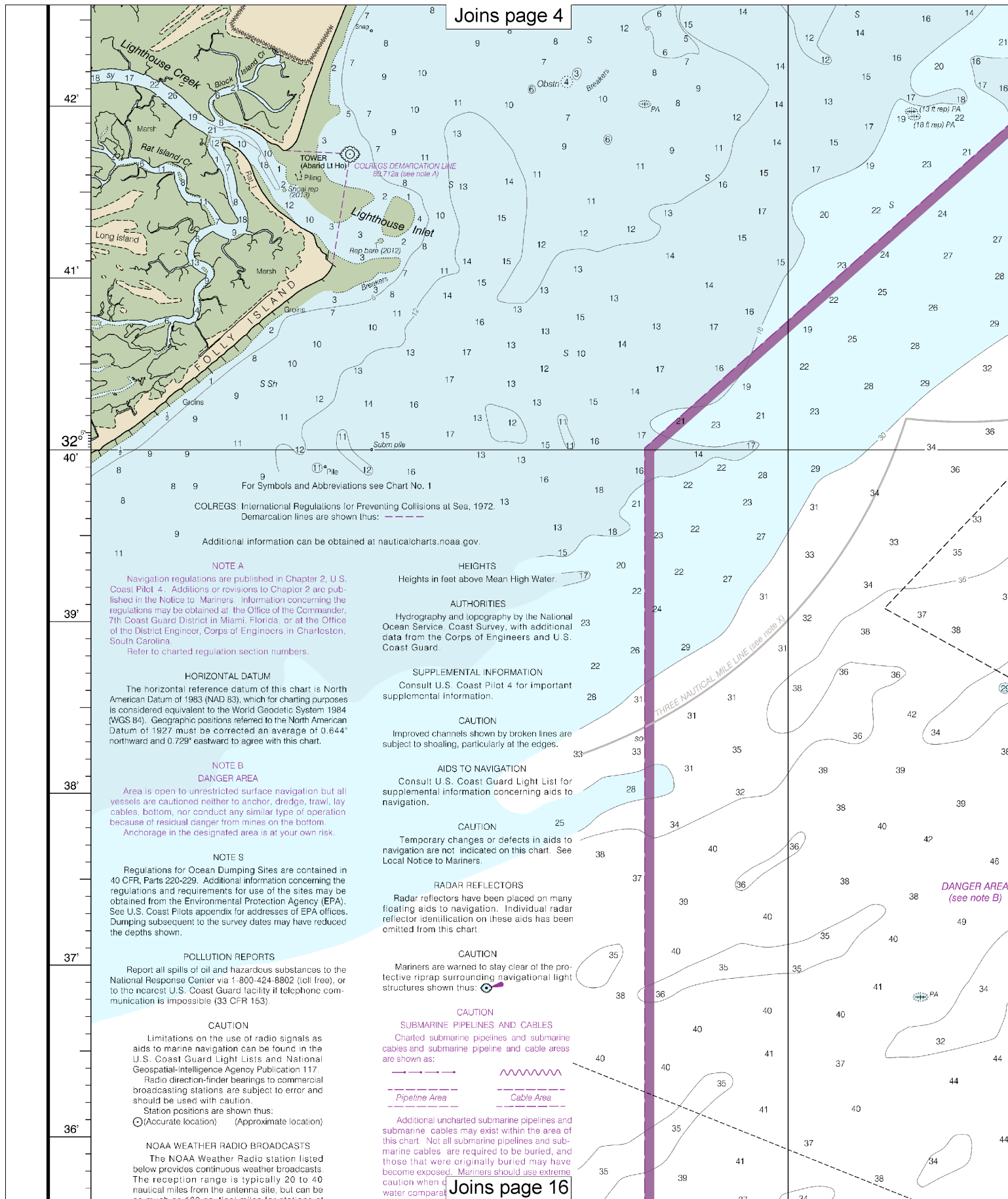
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SCALE 1:40,000
 Nautical Miles

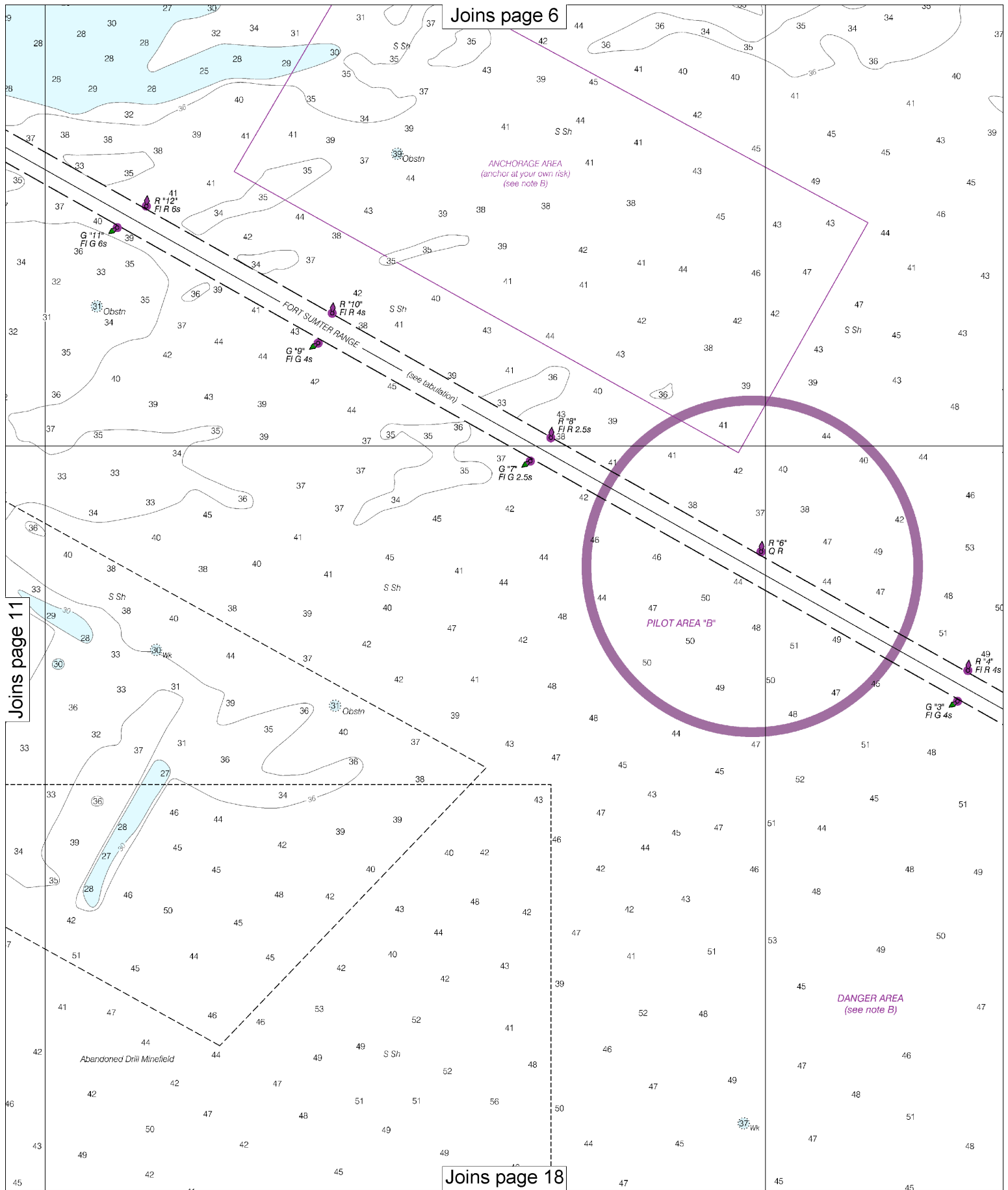
See Note on page 5.











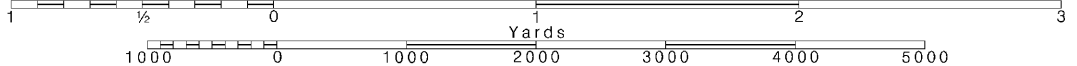
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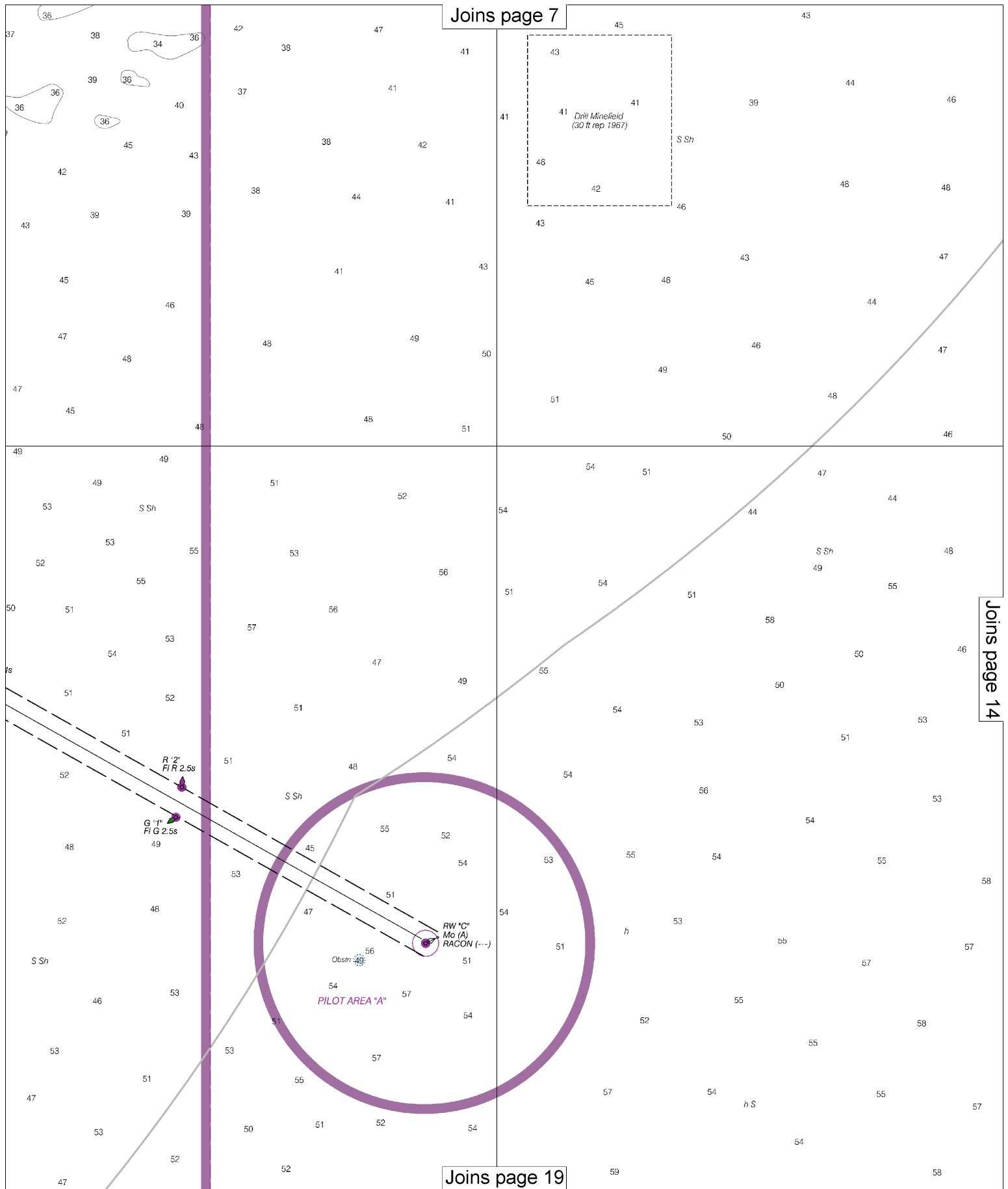
Note: Chart grid lines are aligned with true north.

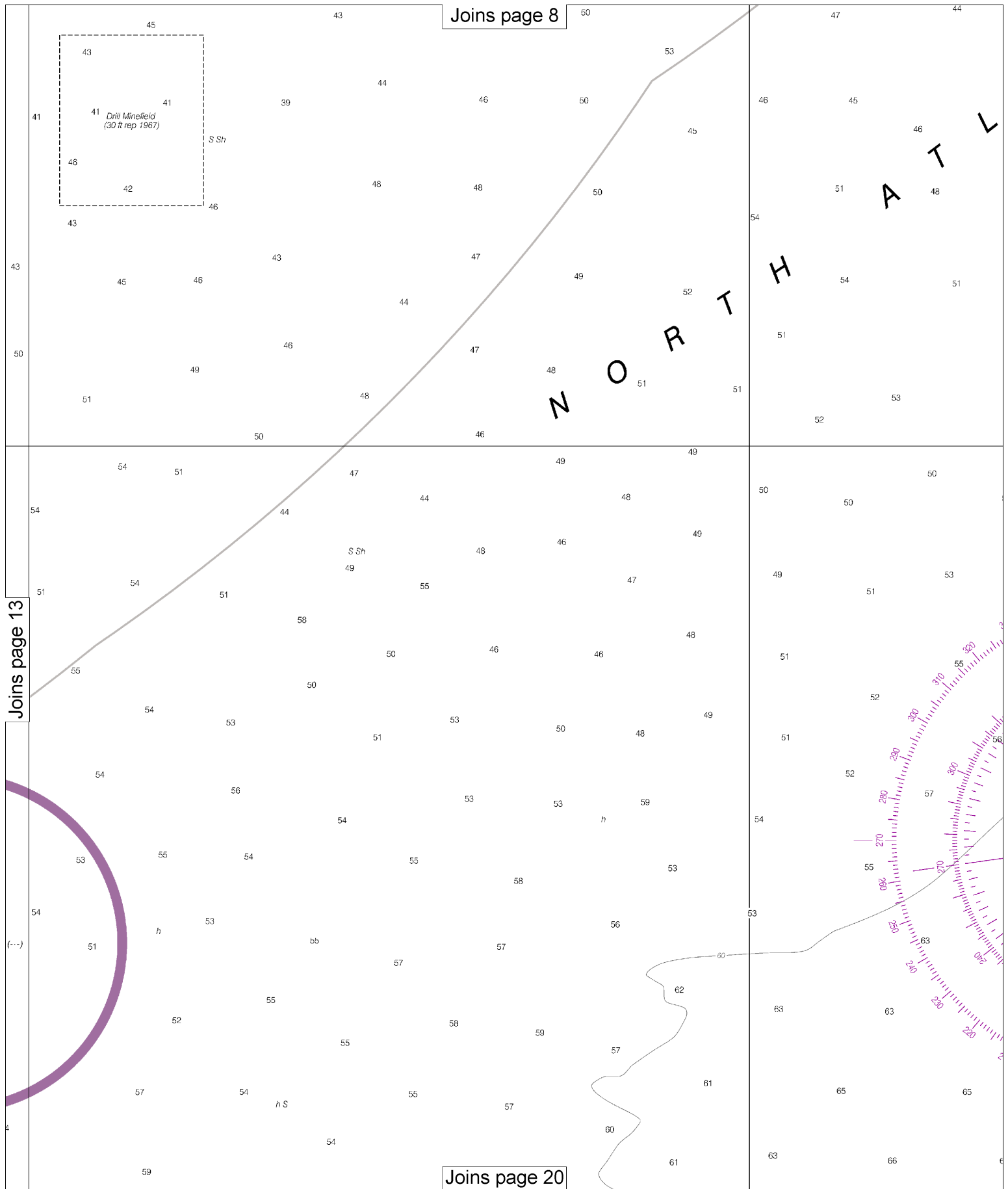
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SCALE 1:40,000
Nautical Miles

See Note on page 5.





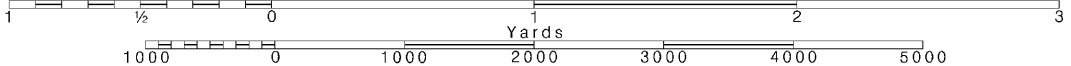


Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.



Joins page 21



U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution. Station positions are shown thus:
⊙ (Accurate location) ⊙ (Approximate location)

NOAA WEATHER RADIO BROADCASTS
The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Charleston, SC KHB-29 162.550 MHz

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

are shown as: **Joins page 10**

Pipeline Area

Cable Area

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

Abandoned Drill Minefield

TIDAL INFORMATION

NAME	PLACE (LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Isle of Palms Pier	(32°47'N/79°47'W)	5.5	5.1	0.2
Breach Inlet	(32°47'N/79°49'W)	5.5	5.1	0.2
The Cove	(32°46'N/79°51'W)	5.6	5.3	0.2
Charleston, Customhouse Wharf	(32°47'N/79°56'W)	5.8	5.4	0.2
Fort Johnson	(32°45'N/79°54'W)	5.6	5.3	0.2
Fort Sumter	(32°45'N/79°53'W)	5.6	5.3	0.2

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the internet from <http://tidesandcurrents.noaa.gov>. (Jun 2014)

NOTE X

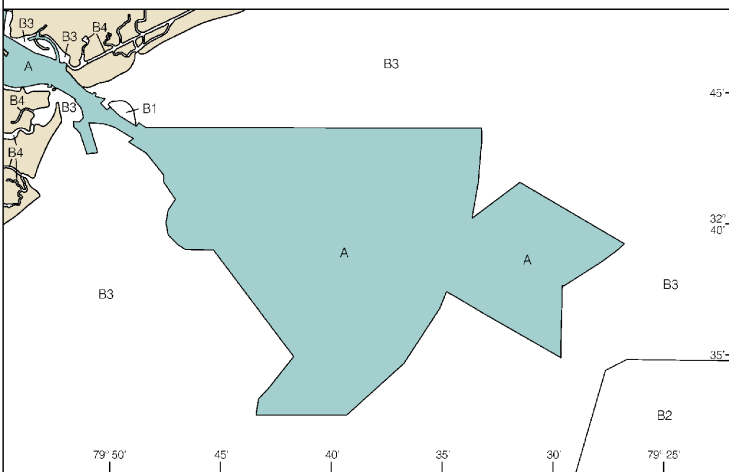
Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, *United States Coast Pilot*.

SOURCE

A	NOS Surveys	full bottom coverage
B1 1990 - 1998	NOS Surveys	partial bottom coverage
B2 1970 - 1989	NOS Surveys	partial bottom coverage
B3 1940 - 1969	NOS Surveys	partial bottom coverage
B4 1900 - 1939	NOS Surveys	partial bottom coverage



HURRICANES AND TROPICAL STORMS

Hurricanes, tropical storms and other major storms may cause considerable damage to marine structures, aids to navigation and moored vessels, resulting in submerged debris in unknown locations. Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from their charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wrecks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved. Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

CHARLESTON HARBOR ENTRANCE

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JUN 2015

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIM	
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET) LENGTH (MILES)
FORT SUMTER RANGE	38.1	49.0	49.0	36.2	6-15	A 1000 17.0

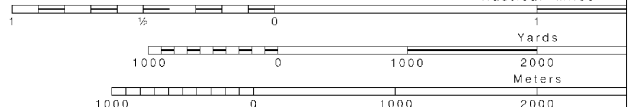
A. MAINTAINED 800 FEET WIDE AT PROJECT DEPTH OF 47 FEET.

B. FINAL 100 FEET LEFT AND RIGHT PROJECT DEPTH 42 FEET.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

SCALE 1:40,000

Nautical Miles



1st Ed., Jul. 2014

11528

Last Correction: 6/10/2016. Cleared through:
LNM: 2516 (6/21/2016), NM: 2716 (7/2/2016)

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at <http://www.nauticalcharts.noaa.gov/staff/contact.htm>.

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published Agency and the Local Notice to Mariners (LNM) issued periodically by each of the lower left hand corner. Chart updates corrected from Notice to Mariners hand corner are available at nauticalcharts.noaa.gov.

16

Note: Chart grid lines are aligned with true north.

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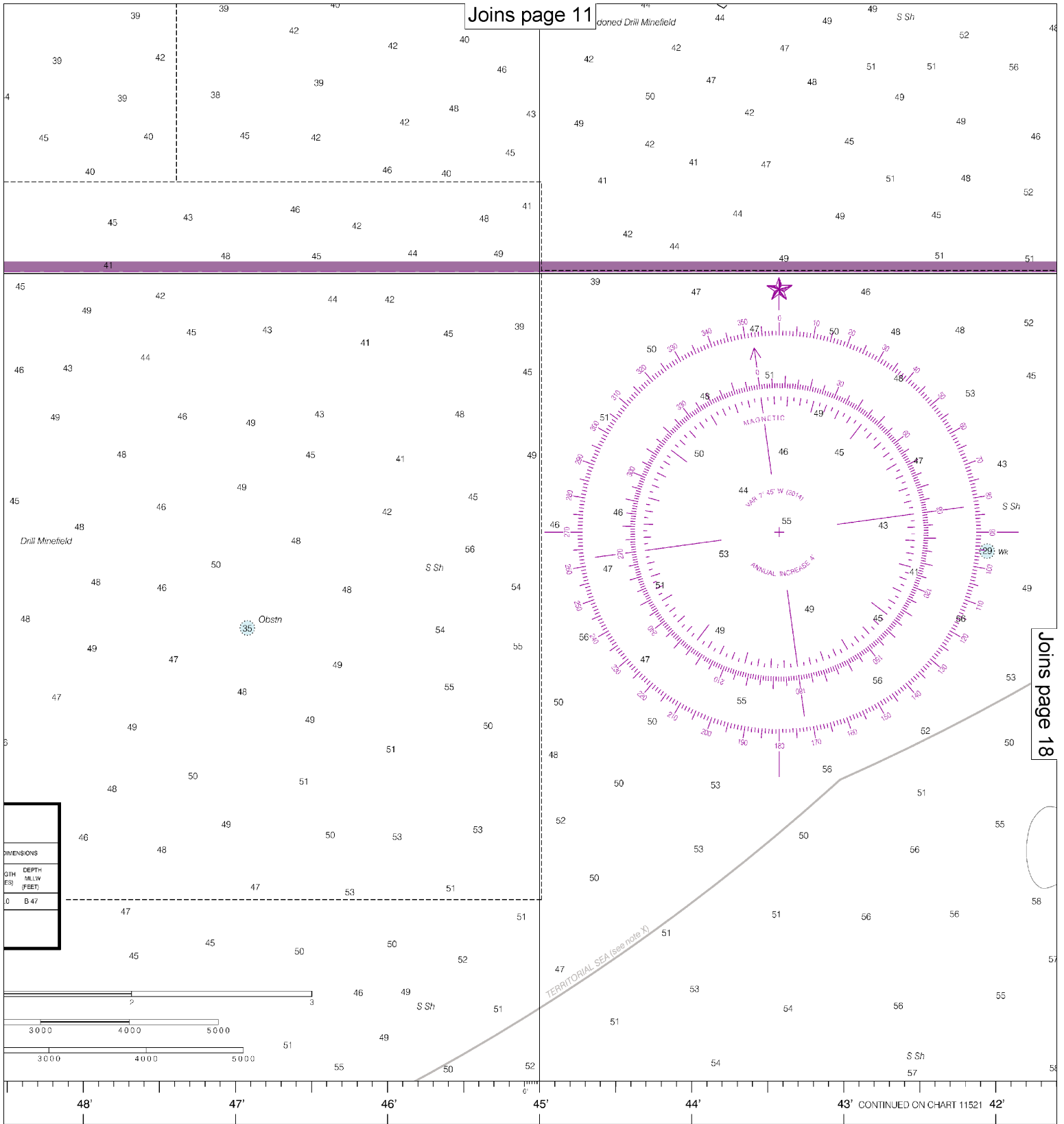
SCALE 1:40,000
Nautical Miles

See Note on page 5.



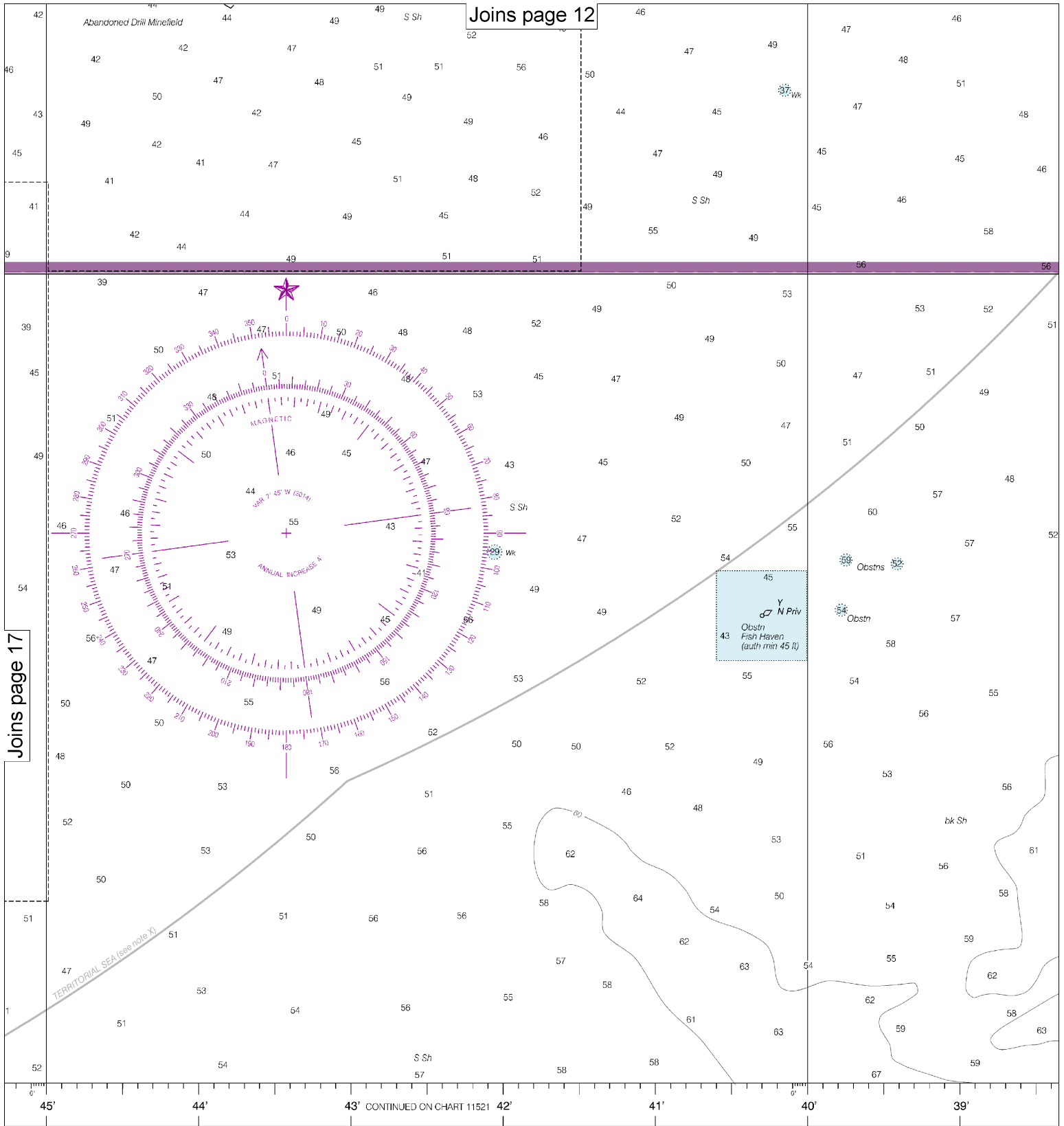
andoned Drill Minefield

S Sh



DIMENSIONS	
DEPTH	DEPTH
(FATHOMS)	(METERS)
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1	1
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4	4
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99	99
100	100

shod weekly by the National Geospatial-Intelligence
each U.S. Coast Guard district to the dates shown in
inors published after the dates shown in the lower left



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NATIONAL OCEANIC AND
ATMOSPHERIC
ADMINISTRATION
NATIONAL COAST AND GEODETIC SURVEY

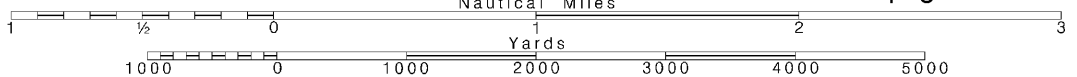
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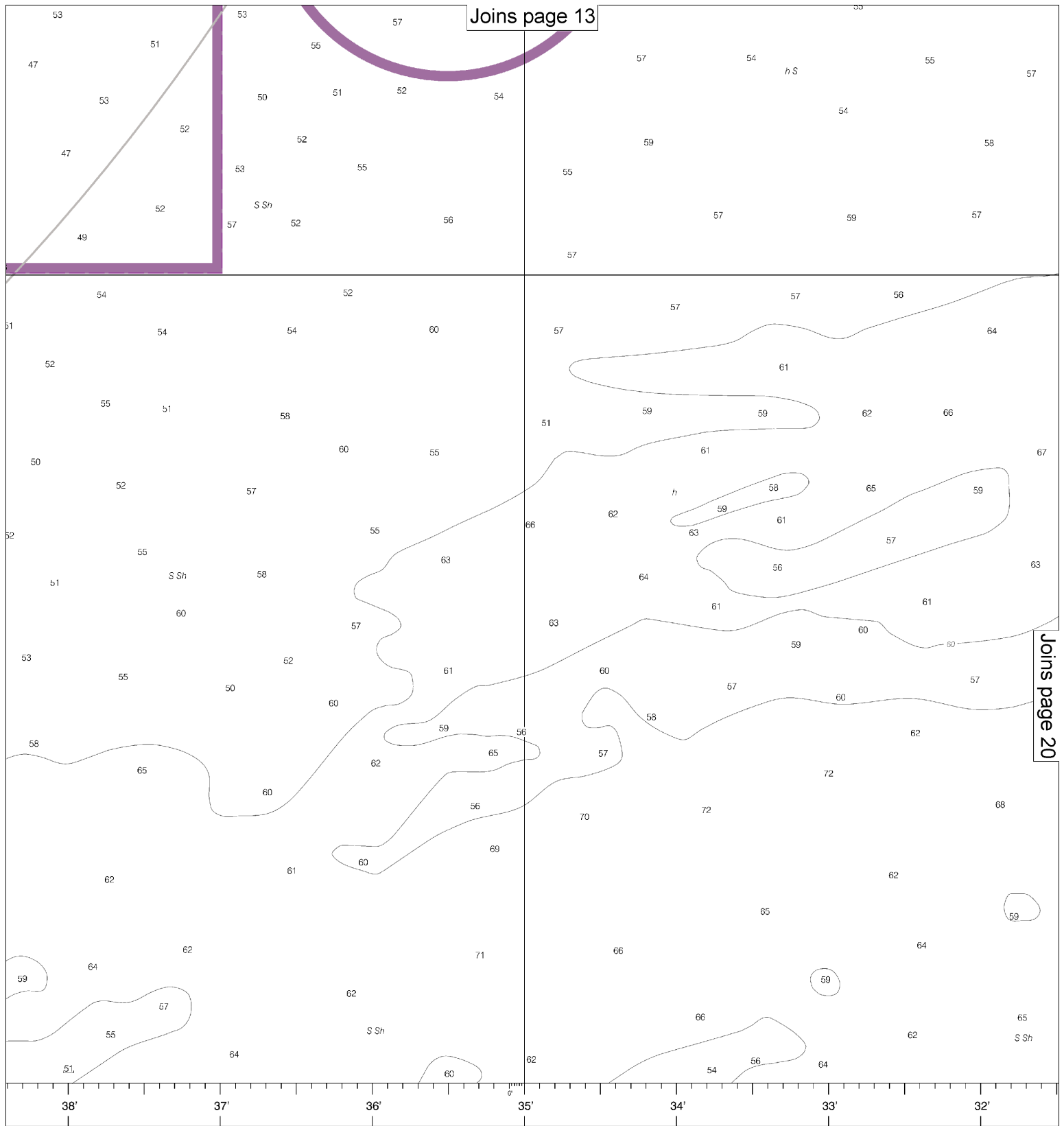
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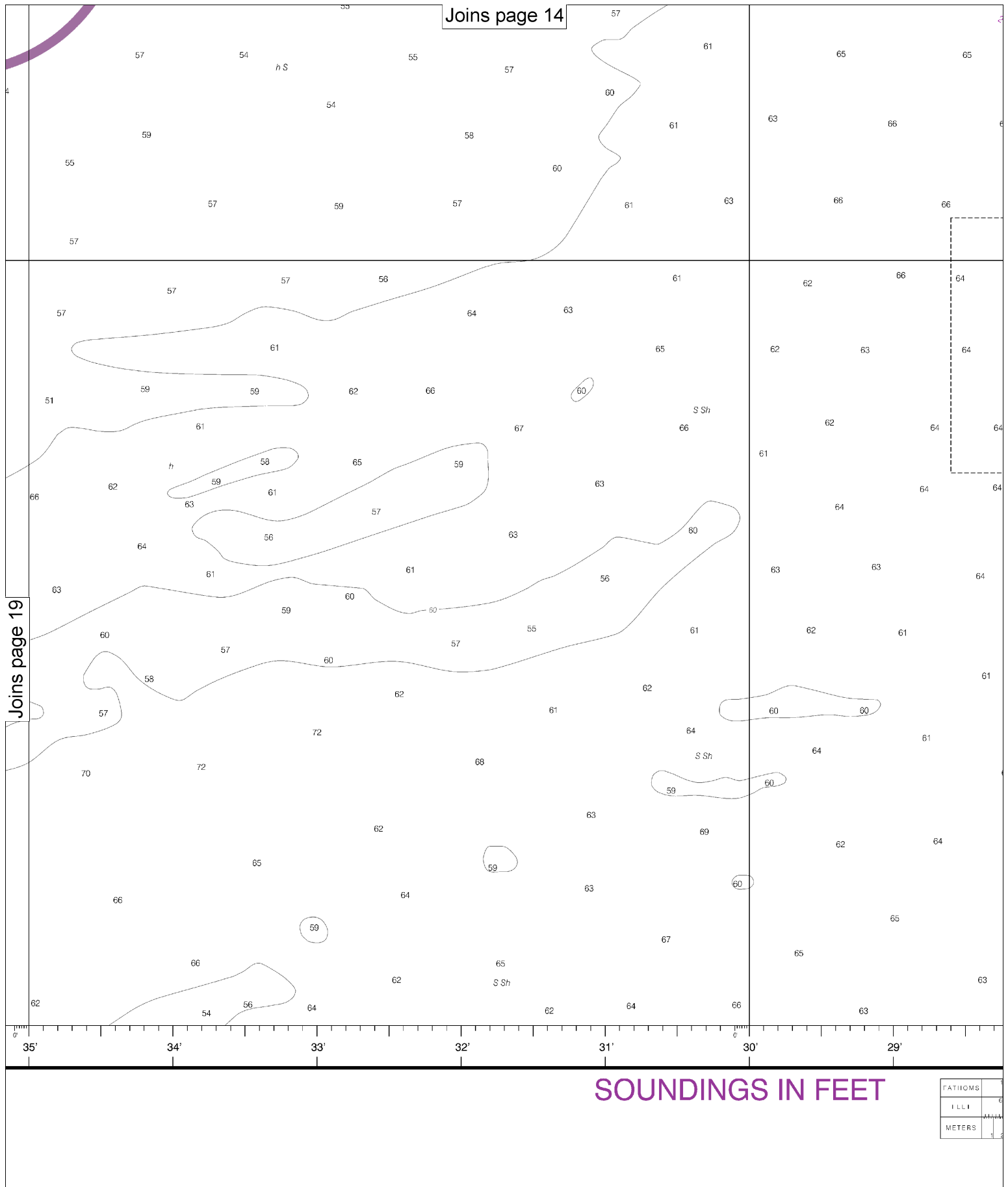
SCALE 1:40,000
Nautical Miles

See Note on page 5.





at Washington, D.C.
 DEPARTMENT OF COMMERCE
 HYDROGRAPHIC SURVEY
 COAST AND GEODETIC SURVEY



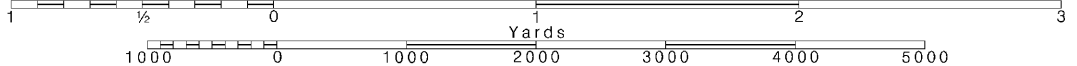
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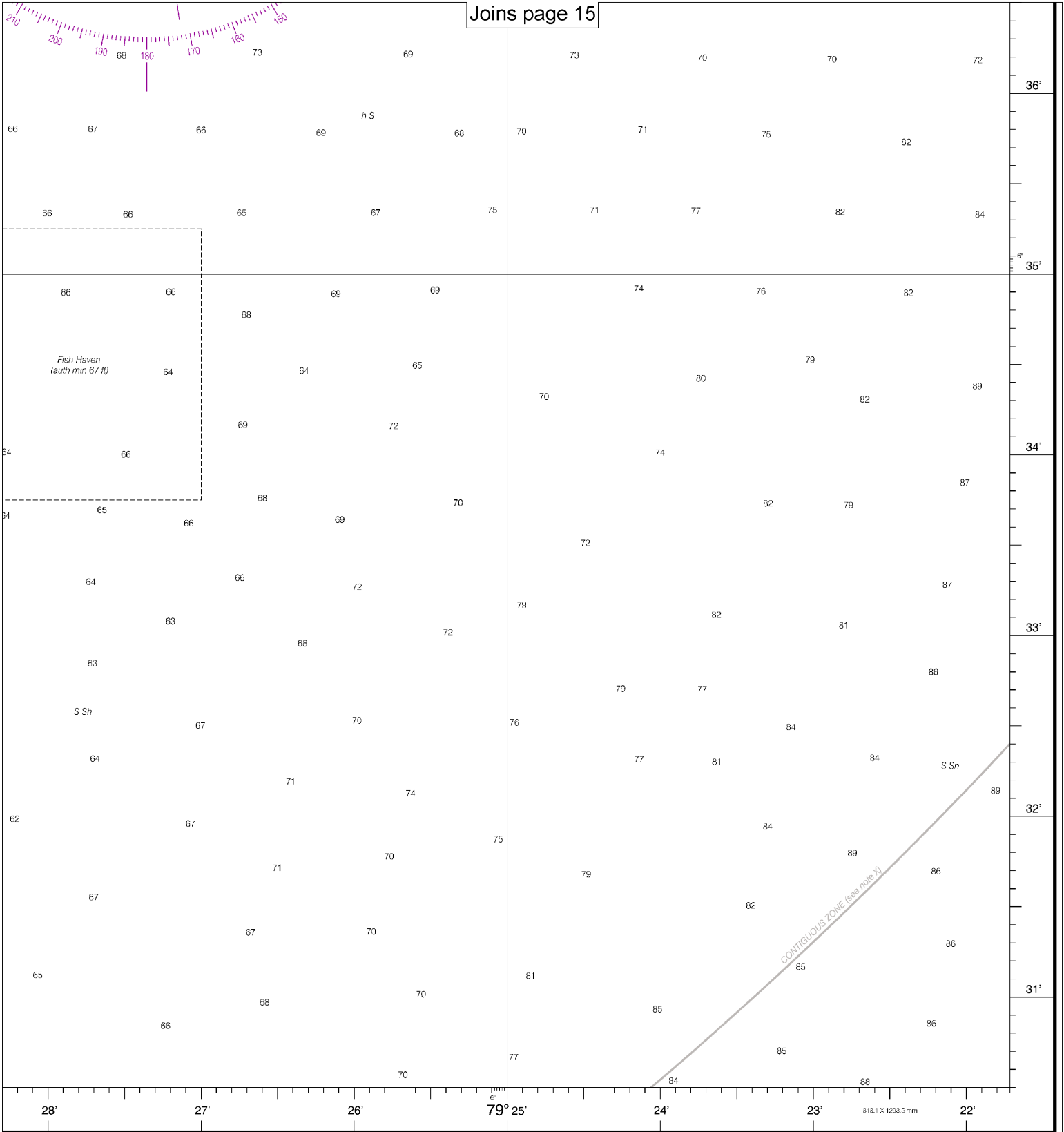
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SCALE 1:40,000
Nautical Miles

See Note on page 5.





Charleston Harbor Entrance and Approach
SOUNDINGS IN FEET - SCALE 1:40,000

11528



VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

Quick References

Nautical chart related products and information	—	http://www.nauticalcharts.noaa.gov
Interactive chart catalog	—	http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml
Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



— For the latest news from Coast Survey, follow **@NOAAcharts**



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.